

VSP homologies (Fig.1)

	1	5	10	15	20	25	30
VSP-b	S	S	E	E	E	E	E
VSP-a	T	P	E	E	E	E	E
T.phos			L	E	E	E	E
Ph.vulg	D	T	E	E	E	E	E
Ar.VSP							
Ar.1A-1							
Ar.17A-1							
	31	35	40	45	50	55	
VSP-b	P	E	E	E	E	E	E
VSP-a	T	P	E	E	E	E	E
T.phos			M	V	G	P	G
Ph.vulg	D	T	E	E	E	E	E
Ar.VSP							
Ar.1A-1							
Ar.17A-1							
	60	65	70	75	80	85	
VSP-b	H	H	D	I	E	E	E
VSP-a	T	P	E	E	E	E	E
T.phos	V	D	G	D	G	R	D
Ph.vulg	H	E	E	E	E	E	E
Ar.VSP							
Ar.1A-1							
Ar.17A-1							
	90	95	100	105	110	115	
VSP-b	E	E	E	E	E	E	E
VSP-a	T	P	E	E	E	E	E
T.phos	L	E	V	F	D	E	F
Ph.vulg	S	E	E	E	E	E	E
Ar.VSP							
Ar.1A-1							
Ar.17A-1							
	120	125	130	135	140	145	
VSP-b	E	E	E	E	E	E	E
VSP-a	T	P	E	E	E	E	E
T.phos	E	V	L	K	E	E	E
Ph.vulg	S	E	E	E	E	E	E
Ar.VSP							
Ar.1A-1							
Ar.17A-1							
	150	155	160	165	170	175	
VSP-b	E	E	E	E	E	E	E
VSP-a	T	P	E	E	E	E	E
T.phos	N	A	G	E	H	E	E
Ph.vulg	S	E	E	E	E	E	E
Ar.VSP							
Ar.1A-1							
Ar.17A-1							
	180	185	190	195	200	205	
VSP-b	E	E	E	E	E	E	E
VSP-a	T	P	E	E	E	E	E
T.phos	N	A	M	E	E	E	E
Ph.vulg	S	E	E	E	E	E	E
Ar.VSP							
Ar.1A-1							
Ar.17A-1							
	210	218					
VSP-b	E	E	E	E	E	E	E
VSP-a	T	P	E	E	E	E	E
T.phos	N	A	M	E	E	E	E
Ph.vulg	S	E	E	E	E	E	E
Ar.VSP							
Ar.1A-1							
Ar.17A-1							

Figure 2

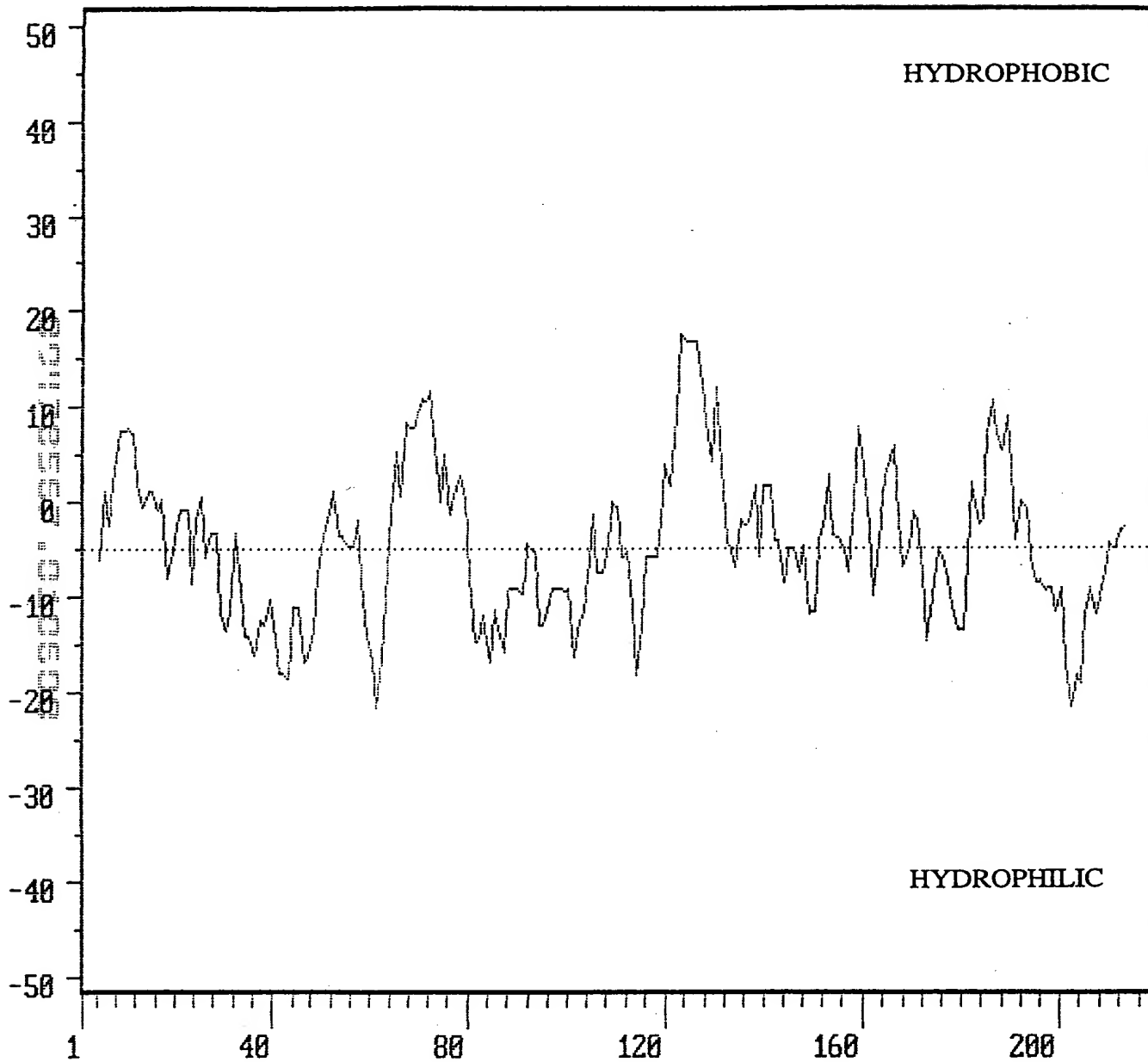
PROPOSED VSP β METHIONINE-ENRICHED VARIANTS

	1	5	10	15	20	25	30																								
VSPβ	R	S	S	E	V	K	C	A	S	F	R	L	A	V	E	A	H	N	I	R	A	F	K	T	I	P	E	E	C	V	
VSPβ-Met10					M														M												M
VSPβ-Met20					M														M												M
VSPβ-Met30					M														M							M					M
	31	35	40	45	50	55	60																								
VSPβ	E	P	T	K	D	Y	I	N	G	E	Q	F	R	S	D	S	K	T	V	N	Q	Q	A	F	F	Y	A	S	E	R	
VSPβ-Met10							M							M																	M
VSPβ-Met20			M					M					M																		M
VSPβ-Met30			M					M					M						M												M
	61	65	70	75	80	85	90																								
VSPβ	E	V	H	H	N	D	I	F	I	F	G	I	D	N	T	V	L	S	N	I	P	Y	Y	E	K	H	G	Y	G	V	
VSPβ-Met10		M					M					M				M															M
VSPβ-Met20		M				M		M				M				M															M
VSPβ-Met30		M				M		M				M				M				M										M	
	91	95	100	105	110	115	120																								
VSPβ	E	E	F	N	E	T	L	Y	D	E	W	V	N	K	G	D	A	P	A	L	P	E	T	L	K	N	Y	N	K	L	
VSPβ-Met10																															
VSPβ-Met20																															
VSPβ-Met30			M																												
	121	125	130	135	140	145	150																								
VSPβ	L	S	L	G	F	K	I	V	F	L	S	G	R	Y	L	D	K	M	A	V	T	E	A	N	L	K	K	A	G	F	
VSPβ-Met10		M					M											M							M						
VSPβ-Met20		M						M								M		M							M					M	
VSPβ-Met30		M						M								M		M						M		M				M	
	151	155	160	165	170	175	180																								
VSPβ	H	T	W	E	Q	L	I	L	K	D	P	H	L	I	T	P	N	A	L	S	Y	K	S	A	M	R	E	N	L	L	
VSPβ-Met10																															
VSPβ-Met20																															
VSPβ-Met30																															
	181	185	190	195	200	205	210																								
VSPβ	R	Q	G	Y	R	I	V	G	I	I	G	D	Q	W	S	D	L	L	G	D	H	R	G	E	S	R	T	F	K	L	
VSPβ-Met10									M														M								
VSPβ-Met20									M														M				M				
VSPβ-Met30									M														M				M				
	211	215	218																												
VSPβ	P	N	P	M	Y	Y	I	E																							
VSPβ-Met10				M				M																							
VSPβ-Met20				M				M																							
VSPβ-Met30				M				M																							

Fig. 3A

Hydropathy index computation for sequence VSPB.

Total number of amino acids is: 218.



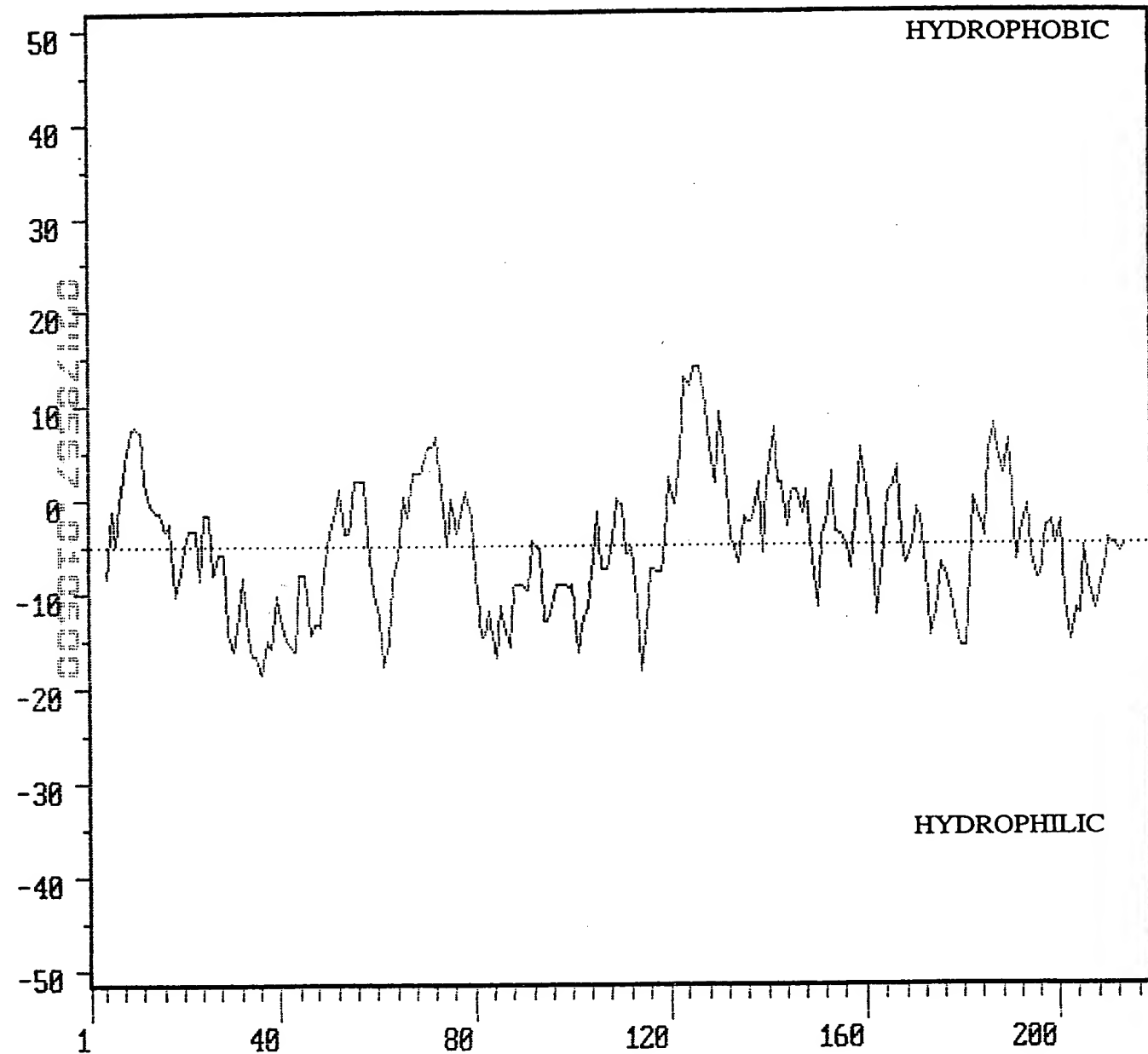
Hydropathic index of VSPB from amino acid 1 to amino acid 218.

Computed using an interval of 9 amino acids. (GRAVY = -4.95).

Fig. 3B

Hydropathy index computation for sequence VSPM10

Total number of amino acids is: 218.



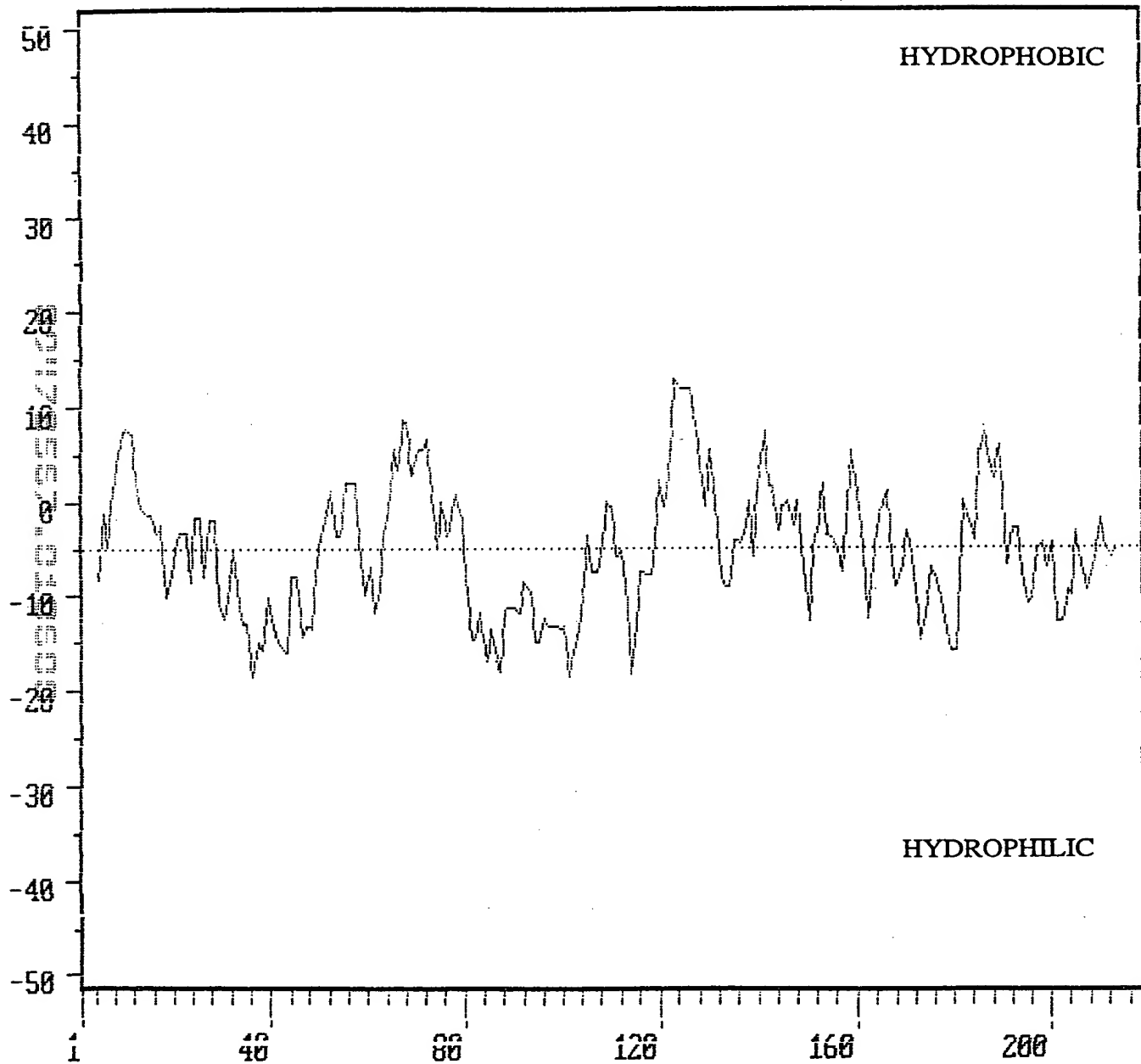
Hydropathic index of VSPM1 from amino acid 1 to amino acid 218.

Computed using an interval of 9 amino acids. (GRAVY = -5.52).

Fig. 3C

Hydropathy index computation for sequence VSPM20.

Total number of amino acids is: 218.



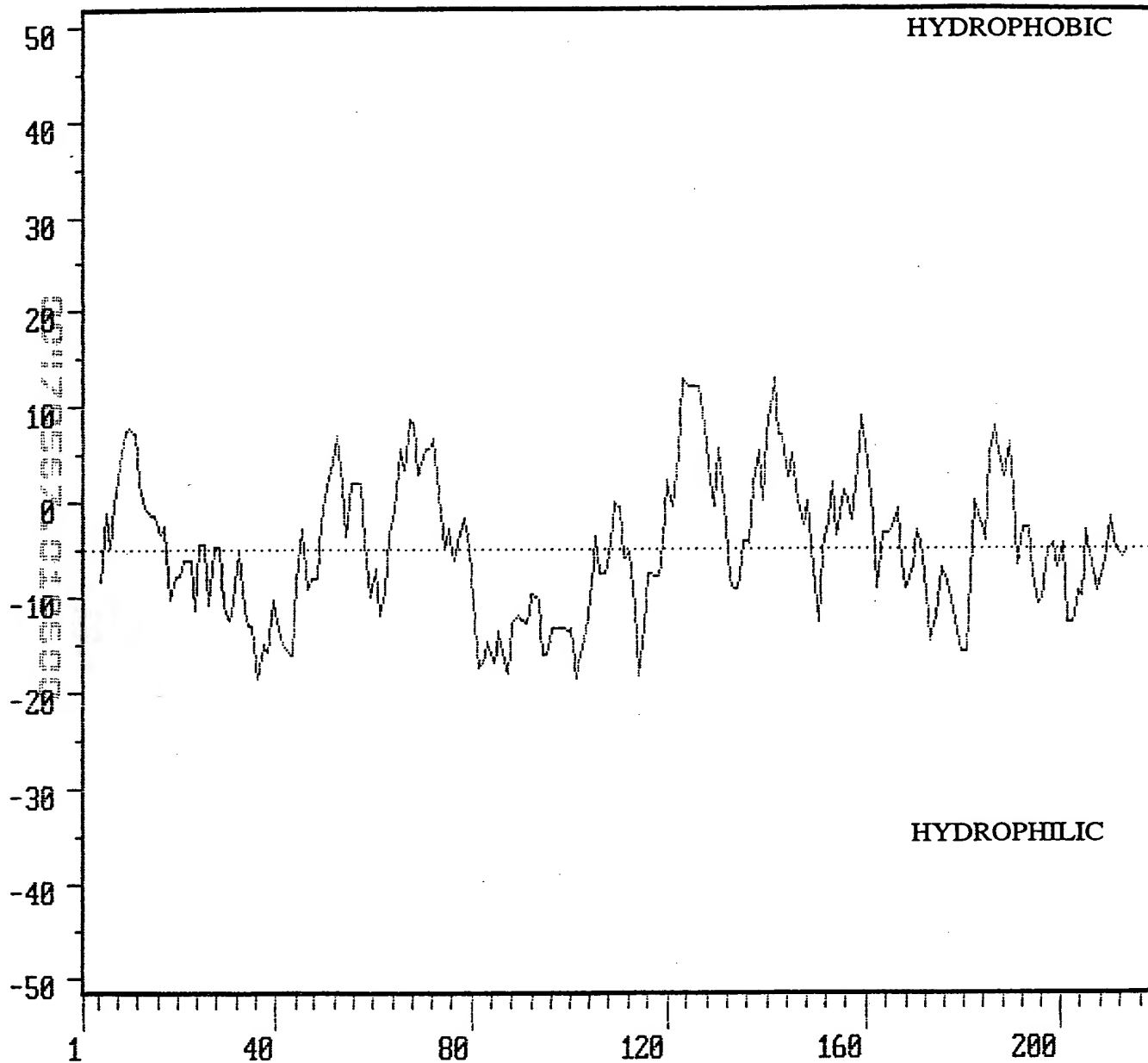
Hydropathic index of VSPM20 from amino acid 1 to amino acid 218.

Computed using an interval of 9 amino acids. (GRAVY = -5.68).

Fig. 3D

Hydropathy index computation for sequence VSPM30.

Total number of amino acids is: 218.



Hydropathic index of VSPM30 from amino acid 1 to amino acid 218.

Computed using an interval of 9 amino acids. (GRAVY = -5.31).

VSP β -met10 sequence

Not I

[illegible]

Figure 5

Colony lift assay to detect protein-protein interactions

